

an anion including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2E)$, wherein X^1 and X^2 are the same or different and comprise SO or PF.

30. (Newly Added) The medium according to claim 29, wherein the medium is used in combination with at least one other component selected from the group consisting of a metallic salt, a polar polymer, and an aprotic cosolvent.

31. (Newly Added) The medium according to claim 29, wherein the medium is non-flammable.

32. (Newly Added) The medium according to claim 29, wherein the medium is used to perform an organic chemistry reaction.

33. (Newly Added) The medium according to claim 32, wherein the medium is used as a medium for a reaction selected from the group consisting of Diels-Alder, Friedel-Craft, mixed aldolisation, condensation, polymerization, nucleophilic substitution, and electrophilic substitution.

34. (Newly Added) The medium according to claim 32, wherein the medium comprises at least one chiral onium cation allowing enantioselective reactions.

35. (Newly Added) The medium according to claim 32, wherein the medium comprises at least one catalytic species.

36. (Newly Added) The medium according to claim 35, wherein the catalytic species is at least one of the group consisting of an alkaline metal salt, a transition metal salt, a rare earth metal salt, and an organometallic salt.

37. (Newly Added) The medium according to claim 36, wherein the catalytic species is coordinated with one or more ligands.

B 38. (Newly Added) The medium according to claim 36, wherein the organometallic salt is a metallocene.

39. (Newly Added) The medium according to claim 37, wherein the one or more ligands are selected from the group consisting of bipyridines, porphyrines, phosphines, and arsines.

40. (Newly Added) The medium according to claim 32, wherein the organic chemistry reaction is performed in a biphasic system.

41. (Newly Added) The medium according to claim 29, wherein the medium is used as an antistatic medium.

42. (Newly Added) The medium according to claim 41, wherein the antistatic medium is used as an antistatic coating.

43. (Newly Added) An electrochemical device having at least two electrodes and one electrolyte, said electrolyte comprising at least one salt dissolved in at least one ionic compound of low melting point, comprising:

a cation of the onium type with at least one heteroatom such as N, O, S or P carrying a positive charge; and

an anion including, in whole or in part, at least one imide ion of the type $(FX^1O)N^-(OX^2F)$, wherein X^1 and X^2 are the same or different and comprise SO or PF.

44. (Newly Added) The electrochemical device according to claim 43, wherein said device is used as an electrochemical generator, said generator comprising one negative and one positive electrode, wherein

said one negative electrode comprises a compound selected from the group consisting of lithium or an alloy thereof, a carbon insertion compound such as petroleum coke or graphite, a low insertion potential oxide such as titanium spinel

$Li_{4-x+3y}Ti_{5-x}O_{12}$ ($0 \leq x, y \leq 1$), a double nitride of a transition metal and lithium such as $Li_{3-x}Co_zN$ ($0 \leq z \leq 1$), a compound having a structure of the antifluorite type such as Li_3FeN_2 or Li_7MnN_4 , and mixtures thereof; and

said one positive electrode comprises a compound selected from the group consisting of VO_x ($2 \leq x \leq 2.5$), mixed oxides of lithium and vanadium such as LiV_3O_8 ; a double oxide of cobalt and lithium that is optionally partially substituted and has a general formula $\text{Li}_{1-x}\text{Co}_{1-x+y}\text{Ni}_x\text{Al}_y$ ($0 \leq x+y \leq 1$; $0 \leq \alpha \leq 1$), wherein $\text{M}=\text{Li}$, Mg , Al , Cr , Ni , Co , Cu , Ni , Fe , a double phosphate of the olivine or Nasicon structure such as $\text{Li}_{1-x}\text{Fe}_{1-x}\text{Mn}_x\text{PO}_4$, $\text{Li}_{1-x+2\alpha}\text{Fe}_2\text{P}_{1-x}\text{Si}_\alpha\text{O}_4$ ($0 \leq x, \alpha \leq 1$), a rhodizonic acid salt, a polydisulfide derived from the oxidation of dimercaptoethane-2,5-dimercapto-1,3,4-thiadiazole-2,5-dimercapto-1,3,4-oxadiazole-1,2-dimercaptocyclobutene-3,4-dione; and mixtures thereof.

45. (Newly Added) The electrochemical generator according to claim 44, wherein the electrolyte comprises at least one anion selected from the group consisting of Cl^- ; Br^- ; I^- ; NO_3^- ; $\text{M}(\text{R}^{10})_4\text{A}(\text{R}^{10})_6^-$; $\text{R}^{11}\text{YO}_2^-$; $[\text{R}^{11}\text{YONZ}^1]^-$; $[\text{R}^{11}\text{YOCZ}^2\text{Z}^3]^-$; $(\text{R}^{11})_2\text{PO}_2^-$; $(\text{R}^{11})_2\text{P}(\text{NCN})\text{O}^-$; $(\text{R}^{11})_2\text{P}(\text{C}(\text{CN})_2)\text{O}^-$; $[(\text{R}^{11})_2\text{PONZ}^1]^-$; $[(\text{R}^{11})_2\text{P}(\text{NCN})\text{NZ}^1]^-$; $[(\text{R}^{11})_2\text{P}(\text{C}(\text{CN})_2)\text{NZ}^1]^-$; 4,5-dicyano-1,2,3-triazole; 3,5-bis(Rf)-1,2,4-triazole; tricyanomethane; pentacyanocyclopentadiene; pentakis(trifluormethyl)cyclopentadiene; barbituric acid; and Meldrum acid derivatives and their substitution products, wherein

M is B, Al, Ga or Bi;

A is P, As and Sb;

R^{10} is a halogen;

R^{11} represents independently H, F, alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl, dialkylamino,

R¹¹ represents independently H, F, alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl, dialkylamino, alkoxy or thioalkoxy, each having from 1 to 18 carbon atoms and being unsubstituted or substituted with one or more oxa, thia, or aza substituents, and wherein one or more hydrogen atoms are optionally replaced with halogen in a ratio of 0 to 100%, and eventually being part of polymeric chain;

Y represents C, SO, S=NCN, S=C(CN)₂, an alkyl, alkenyl, aryl, arylalkyl, alkylaryl, arylalkenyl, alkenylaryl having from 1 to 18 carbon atoms and optionally substituted by one or more oxa, thia, or aza, or a dialkylamino group N(R¹⁰)₂; and

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Z¹ to Z³ represent independently R¹¹, R¹¹YO, (R¹¹)₂PO, (R¹¹)₂P(NCN), (R¹¹)₂P(C(CN)₂) or CN, wherein this group is optionally part of a polymeric chain.

46. (Newly Added) The electrochemical device according to claim 43, wherein ^{no note} the cation of the metallic salt is selected from the group consisting of a proton, a cation of an alkaline metal, a cation of an alkaline-earth metal, a cation of a transition metal, and a cation of a rare earth metal.

47. (Newly Added) The electrochemical generator according to claim 44, wherein at least one metallic salt is a lithium salt.
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48. (Newly Added) The electrochemical device according to claim 43, wherein said device is used as an electrical energy storage system of the supercapacitor type.

49. (Newly Added) The electrical energy storage system according to claim 48, wherein at least one electrode comprises carbon having a high specific surface area.

50. (Newly Added) The electrical energy storage system according to claim 48, wherein at least one electrode comprises a conjugated polymer.

B 51. (Newly Added) The electrical energy storage system according to claim 48, wherein both electrodes comprise a conjugated polymer having three degrees of oxidation.

52. (Newly Added) The electrical energy storage system according to claim 51, wherein the conjugated polymer is a phenyl-3-thiophene derivative.

53. (Newly Added) The electrochemical device according to claim 43, wherein said device is used as a light modulation system of the electrochromic type and further comprises at least one electrochromic material, and wherein said electrolyte comprises at least one catalytic species selected from the group

consisting of an alkaline metal salt, a transition metal salt, a rare earth metal salt, and an organometallic salt.

54. (Newly Added) The light modulation system according to claim 53, wherein the electrochromic material is deposited on a transparent semiconductor layer, wherein said semiconductor layer comprises tin oxide or indium oxide on a glass or polymer substrate.

B 55. (Newly Added) The light modulation system according to claim 54, wherein the electrochromic material is an oxide selected from the group consisting of molybdenum oxides, tungsten oxides, titanium oxides, vanadium oxides, niobium oxides, cerium oxides, tin oxides, and mixtures thereof.

56. (Newly Added) The light modulation system according to claim 53, wherein the electrochromic material is dissolved in the electrolyte.

57. (Newly Added) The light modulation system according to claim 56, wherein the electrolyte is gelified by a polymer.

58. (Newly Added) The electrochemical device according to claim 43, wherein the electrolyte is impregnated in a porous membrane.